**What is Claimed is:**

1. A pharmaceutical dosage form for use in a dry powder inhalation devise which comprises:

(a) at least one micronized or spray dried solid active ingredient, which active ingredient is soluble in water; and

(b) a coating material selected from the group consisting of a fatty acid, an alcohol derivative and a poloxamer, wherein the coating material coats at least partially the surface of the active ingredient.

2. The pharmaceutical dosage form as recited in claim 1 wherein the active ingredient has been encapsulated and the coating material partially coats the so-encapsulated active ingredient.

3. The pharmaceutical dosage form as recited in claim 1 further comprising a solid, pharmaceutically acceptable carrier excipient and the coating material coats at least partially the surface of the agglomerate or the mixture formed by the active ingredient and the carrier excipient.

4. The pharmaceutical dosage form as recited in claim 1 wherein the active ingredient has a mean mass aerodynamic diameter of about 0.5 to about 8 μm.

5. The pharmaceutical dosage form as recited in claim 1 wherein the coating material is a fatty acid sorbitan ester or a PEG ether thereof.

6. The pharmaceutical dosage form as recited in claim 5 wherein the sorbitol derivative is selected from the group consisting of sorbitan mono-oleate, sorbitan trioleate, sorbitan monostearate, sorbitan tristearate, sorbitan monolaurate, sorbitan trilaurate, sorbitan monomyristate, sorbitan trimyristate, sorbitan monopalmitate, sorbitan tripalmitate, PEG sorbitan monolaurate, PEG sorbitan monopalmitate, PEG sorbitan monostearate, PEG sorbitan tristearate, PEG sorbitan mono-oleate and PEG sorbitan trioleate.